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Inventor: Pudar, Nick J.

VEHICLE RADIO SYSTEM WITH
CUSTOMIZED ADVERTISING

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Group Art Unit: 3622

Examiner: Janvier, Jean D.

SECOND REVISED APPEAL BRIEF

Board of Patent Appeals and Interference
US Patent and Trademark Office
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

On October 11, 2005, Appellant filed a Notice of Appeal of a Final Rejection in the Final Office Action of July 12, 2005. The appeal covers claims 1-45 which were rejected on prior art grounds. The Notice of Appeal was received in the Patent Office on October 11, 2005. Applicant filed an amendment to correct formalities in claims 24 and 41 on December 9, 2005, before the original appeal brief was filed. The amendments are now reflected in the claims listed in the Claims Appendix.

Appellant filed a timely appeal brief on February 13, 2006. On April 25, 2006, the Examiner declined to accept the brief strictly on formal grounds and issued a Notice of Non-Compliant Appeal Brief.

Appellant filed a "Revised Appeal Brief" on July 25, 2006. Then, on October 18, 2006, the Examiner again declined to accept the brief requesting that the Summary section include support for claim 1 and various dependent claims separately argued. By telephone call with the Examiner on November 16th, it was agreed that the Revised Appeal Brief did in fact have support

for claim 1. With regard to the dependent claims, Appellant notes that, contrary to the statement contained at the bottom of the Notice of Non-Compliant Appeal Brief, support need not be provided in the summary section for separately argued dependent claims unless they are of the form identified in paragraph 6 of 35 U.S.C. § 112. See 37 C.F.R. § 41.37. This claim format has not been used by Appellant; nonetheless, in an effort to aid the Board support for separately argued dependent claims has been included in the Summary.

Accordingly, Appellant is hereby submitting this "Second Revised Appeal Brief" and requests a one-month extension of time under 37 C.F.R. § 1.136. The Summary section has been revised to comply with Examiner's request. The only exceptions are for claims 5-7 (whose patentability is based on supported claim 4) and claims 44 and 45 (whose patentability is based on supported claim 43).

(i) Real Party in Interest

The real party in interest is the assignee of the applicant inventor who assigned all of his right, title and interest to General Motors Corporation, a Michigan corporation, having its principal place of business at 300 Renaissance Center, Detroit, Michigan 48265-3000.

(ii) Related Appeals and Interferences

There are no other appeals and/or interferences known to Appellant, his assignee, and/or legal representatives that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

(iii) Status of Claims

Appealed claims 1-13, 16-19, 21-41 were rejected under §102(b) in the final Office Action of July 12, 2005.

Appealed claims 14, 15, 20, 42, 43, 44 and 45 were rejected under §103(a) as obvious in the final Office Action of July 12, 2005.

The application does not contain any other claims.

(iv) Status of Amendments

An amendment to dependent claims 24 and 41 has been filed and entered subsequent to the Final Office Action.

(v) Summary of Claimed Subject Matter

Method claims 1–25 will be discussed after the apparatus claims 26-45 so that the corresponding structure associated with the apparatus claims can more easily be introduced at the beginning of the summary and assist in the understanding of the method claims.

As claimed in independent claim 26, the invention involves a radio broadcast system 10 having a vehicle radio system 12 that receives radio broadcasts from a transmitting facility 14. (Fig. 1; Page 4, lines 19-21.) In general, the radio broadcast includes programming content along with intermittent advertising slots that are identified by markers. (Fig. 4; Page 4; lines 31-33.) The radio system 12 monitors the channel selected by the vehicle operator and, upon detecting one of these markers, it accesses a stored advertisement and inserts it into the advertising slot. (Figs. 4-6; Page 4, line 31 – Page 5, line 3.)

The radio system 12 includes a radio broadcast receiver 18, a vehicle radio 20, and an advertising control unit 24 having a recording device 28 which stores radio advertisements received from the radio broadcast receiver 18. (Fig. 1; Page 4, line 22 – Page 5, line 3.) The vehicle radio 20 has an input for receiving audio data and at least one output for providing audio signals representative of the received audio data. (Figs. 2-3; Page 7, lines 13-15.) A first one of the radio broadcast streams 62 includes radio advertisements 70 (Fig. 6; Page 10, lines 1-10) and a second one of the radio broadcast streams 60 includes audio (programming) content that contains intermittent advertising slots 66 (Figs. 4 and 5; Page 9, lines 2-5), each identified by a marker 68 contained with that broadcast stream 60. (Fig. 5; Page 9, lines 13-16.) The radio broadcast receiver 18 is coupled to the input of the vehicle radio 20 to provide the vehicle radio with the received audio content. (Fig. 2; Page 7, lines 13-15.) The advertising control unit 24 is connected to the radio broadcast receiver 18 to receive at least some of the radio advertisements contained in the first radio broadcast stream 62. (Fig. 1; Page 4, lines 25-29.)

Upon receipt of one of the markers 68 contained within the second broadcast stream, the advertising control unit 24 is operable to access one of the stored radio advertisements 70, with the accessed radio advertisement being inserted into the advertising slot 66 identified by the received marker 68 so that the accessed radio advertising is included within the audio content sent to the input of the vehicle radio 20. (Figs. 2, 4-6; Page 7, lines 3-9.)

As claimed in dependent claims 32 and 33, the radio broadcast receiver 18 is operable to provide the markers 68 to said advertising control unit 24 (Page 7, lines 3-6), and the advertising control unit 24 is operable in response to receiving one of the markers 68 to access one of the radio advertisements 70 and supply the accessed radio advertisement to the radio broadcast receiver 18. (Page 7, lines 5-9.) Moreover, as claimed in claims 37 and 38, the advertising control unit 24 is operable to select one or more of the received radio advertisements using primary selection data and secondary selection data from the advertising data. (Fig. 8; Page 10, lines 18-24.) The primary selection data is used to determine which of the received advertisements are to be stored rather than ignored, and the secondary selection data is used to select among the previously stored advertisements when an advertising slot is detected. (Fig. 8; Page 10, lines 11-27 and particularly lines 23-27; also, Pages 12-13.) In addition, as claimed in claims 40 and 41 the advertising control unit 24 contains stored user data which can be stored in memory 28 contained in the advertising control unit. (Page 11, lines 30-32.) The advertising control unit 24 is operable to select one or more of the received radio advertisements using the advertisement data and the stored user data. (Page 6, lines 21-30.)

Dependent claim 42 depends from claim 34 and calls for a vehicle communications device operable to transmit identification data received from the first radio broadcast stream that uniquely identifies the accessed radio advertisement from among the other radio advertisements. (Figs. 2-3; Page 5, line 25 – Page 6, line 2.)

With regard to independent claim 43, it is directed to a radio broadcast system 10 for providing broadcasted radio programming and advertising content to an occupant of a vehicle 64. The system 10 includes one or more broadcast transmitting facilities 14, a vehicle radio system 12, a vehicle communications device 26, a vehicle communications central facility 16. (Fig. 1; Page 4, lines 19-25.) The radio broadcast transmitting facility 14 that provides a first radio broadcast stream 62 which includes radio advertisements 70 (Fig. 6; Page 10, lines 1-10) and a second radio broadcast stream 60 which includes audio content that contains intermittent advertising slots 66 (Figs. 4 and 5; Page 9, lines 2-5) each identified by a marker 68 contained with that broadcast stream 60. (Fig. 5; Page 9, lines 13-16.) The vehicle radio system 12 includes a radio broadcast receiver 18, recording device 28, and vehicle radio 20. (Fig. 1; Page 4, lines 22-31; Page 7, line 28 to Page 8, line 2.) The radio broadcast received is operable to

receive the first and second radio broadcast streams 60, 62. (Page 6, lines 20-21.) The recording device 28 is located on the vehicle 64 and is operable to store at least some of the radio advertisements 70 received by the radio broadcast receiver 18. (Page 4, lines 22-31; Page 6, lines 20-23.) The recording device is further operable to supply one or more of the stored radio advertisements 70 for insertion into the second radio broadcast stream 60. (Page 5, lines 1-3.) The vehicle radio 20 is coupled to the radio broadcast receiver 18 to receive the second radio broadcast 60. (Fig. 2; Page 7, lines 13-15.) The vehicle communications device 26 transmits data confirming playback of the radio advertisement 70 inserted into the second radio broadcast 60. (Page 5, lines 26-28; Page 7, lines 16-18; Page 10, lines 15-18; Page 14, lines 17-18.) The vehicle communications central facility 16 receives the data transmitted from the vehicle communications device 26. (Page 5, lines 26-28; Page 7, lines 16-18.)

Each of at least some of the advertisements 70 are transmitted to the vehicle radio system 12 along with primary and secondary selection data that is associated with each said advertisement 70. (Page 10, lines 11-27.) The vehicle radio system 12 monitors the first broadcast stream 62 and stores selected ones of said advertisements 70 on said recording device 28 based on a comparison of primary selection data stored in said vehicle radio system 12 with the primary selection data that is included with the advertisements 70. (Page 6, lines 21-25; Page 10, lines 18-26; Page 12, lines 1-26.) The vehicle radio system 12 also monitors the second broadcast stream 60 for the markers 68 and selects one of the stored advertisements based on the secondary selection data for playback via the vehicle radio 20 during the advertising slot 66 associated with the marker 68. (Figs. 2, 4-6; Page 7, lines 3-15; Page 10, lines 21-27; Page 12, line 27 to Page 13, line 32.) The primary selection data includes one or more data items associated with either the vehicle or a user of the vehicle, or both. (Page 6, line 25 to Page 7, line 2; Page 11, lines 3-6.)

This radio broadcast system 10 can be used to carry out the claimed method of delivering advertising content to a vehicle occupant using a vehicle radio 20. As reflected in independent claim 1, the method includes the steps of receiving a radio advertisement 70, storing the radio advertisement 70 in memory 28, receiving a radio broadcast stream 62, monitoring the received radio broadcast stream 62 for marker data 68 indicative of an advertising slot 66 within the radio broadcast stream 62, and playing the radio broadcast stream 62 using the vehicle radio 20. (Fig.

1; Page 4, line 19 to Page 5, line 1.) In response to detecting the marker data, as claimed in claims 1, 2, 3, 16, and 21-25, the radio advertisement 70 is accessed from memory 28 and played in the advertising slot 66 using the vehicle radio 20. (Page 5, lines 1-3.)

Claim 2 recites an in-line advertisement identified by the marker data 68 and wherein the method further comprises the step of substituting the stored radio advertisement for the in-line advertisement. (Fig. 7; Page 9, lines 8-9; lines 13-16.) Claim 4 calls for radio advertisements accompanied by advertisement data associated with the received radio advertisement, and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the advertisement data associated with the different radio advertisements. (Fig. 8; Page 6, lines 23-30.) As reflected in claims 8-12 and 17-19, the advertisement data can include both primary selection data and secondary selection data. (Fig. 8; Page 10, lines 18-25.) The primary selection data is used to determine which of the received advertisements are to be stored, and the secondary selection data is used to select an advertisement for retrieval and storage from among the previously stored advertisements when an advertising slot is detected. (Fig. 8; Page 10, lines 11-27 and particularly lines 23-27; also, Pages 12-13.)

Claim 14 recites the step of transmitting the stored identification data from the vehicle following playing of its associated radio advertisement. (Figs. 2-3; Page 5, lines 30-33.) Claim 15 calls for the advertisement data for one or more of the stored radio advertisements to include a play count stored in memory and wherein the method further comprises the step of periodically replaying one of the stored radio advertisements until that radio advertisement has been played a number of times that is equal to its associated play count. (Fig. 8; Page 10, line 27 – Page 11, line 2.)

Claim 17 recites advertisement data that includes selection data and wherein said step of storing received radio advertisements further comprises selecting certain ones of the different radio advertisements using the selection data and then storing the selected radio advertisements in the memory. (Fig. 8; Page 10, lines 18-21.) Claim 18 calls for selection data including primary selection data and secondary selection data and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the primary selection data, and wherein said playing step further comprises selecting one of the stored radio

advertisements using the secondary selection data, accessing that stored radio advertisement in response to detecting the marker data, and then playing the accessed radio advertisement using the vehicle radio. (Fig. 8; Page 10, lines 21-27.) Claim 19 discloses the step of storing each of the secondary selection data with its associated radio advertisement in the memory. (Fig. 8; Page 10, lines 23-27.)

Claim 20 recites a step wherein the advertisement data for each radio advertisement includes identification data uniquely identifying that radio advertisement from among the other radio advertisements, and wherein, following playing of a selected radio advertisement, said method further comprises the step of transmitting the identification data from the vehicle. (Fig. 8; Page 5, line 30 – Page 6, line 2.)

Although the Applicant has provided the summary of claimed subject matter with references to specific embodiments of the invention to comply with the requirements set forth in the relevant provisions of 37 C.F.R., this summary has been provided to aid the Board in evaluating the appeal and is not intended to limit the meaning or definition of any terms in the claims.

(vi) Grounds of Rejection to be Reviewed on Appeal

The first issue is whether the subject matter of claims 1-13, 16-19, and 21-41 is anticipated under 35 U.S.C. § 102(b) by the advertising system disclosed in U.S. Patent No. 5,664,948 to Dimitriadis et al. (Dimitriadis).

The second issue is whether the subject matter of claims 14, 15, 20, and 42-45 is obvious under 35 U.S.C. § 103(a) in light of the advertising system disclosed in Dimitriadis and in further view of the system disclosed in U.S. Patent No. 5,774,170 to Hite et al. (Hite).

(vii) Argument

Rejection Under 35 U. S. C. § 102(b)

Claims 1-13, 16-19, and 21-41 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dimitriadis et al. The rejection is respectfully traversed for the reasons discussed below.

Regarding Claims 1, 3, 16, and 21-25, Dimitriadis Does Not Disclose Marker Data

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Dimitriadis. Dependent claims 3, 16, and 21-25 also stand rejected on this same basis and, for purposes of appeal, the patentability of these dependent claims is to be considered on the same basis as that of claim 1.

Claim 1 recites a method of delivering advertising content using a vehicle radio. The claimed method is as follows. A radio advertisement is received and stored in memory. A radio broadcast stream is also received and this radio broadcast stream is monitored for marker data that indicates the presence of an advertising slot in the radio broadcast stream. The radio broadcast stream is played via the vehicle radio and, when the marker data is detected, the previously stored radio advertisement is then played via the radio during the advertising slot in the radio broadcast stream. This enables the vehicle radio to be used to play any of a number of different channels of music, news, or other content with stored advertisements being inserted into pre-selected slots within the streams of content designated by the marker data.

The use of marker data in the radio broadcast stream to identify the location of an advertising slot is not taught or suggested by Dimitriadis. Rather, in the system disclosed by Dimitriadis, advertising is played only in response to either:

1) a command from a separate data broadcast stream (data broadcast 26) and not the radio broadcast stream (voice broadcast 22), or
2) based on extraneous current conditions determined at the vehicle (e.g., geographic location, time of day, operational status such as device power-up).

Dimitriadis Approach #1

In Dimitriadis, the first approach for presenting stored advertisements is shown in Fig. 6 where the paging data packets of the incoming data broadcast 26 (which is handled by data radio 62) are examined to see if they contain a command or advertising to be stored. If it is a command, then it is executed at step 616. As shown in Fig. 5 at 500c and discussed in the patent, the available commands include a PRESENT command in which a specific advertisement is identified for presentation using the advertisement's unique INDEX. Fig. 7 shows this command execution process in more detail where it can be seen at blocks 710 and 712 that the PRESENT command causes the identified advertisement to be queued up for playing.

The PRESENT command as described in Dimitriadis cannot, under any reasonable interpretation, be considered marker data that is contained in the radio broadcast stream. First of all, there is nothing in Dimitriadis which states or otherwise indicates that the PRESENT command marks or otherwise identifies an advertising slot, as recited in claim 1. Rather, it essentially just says "play this ad" which results in the ad being queued for subsequent playback. Secondly, the PRESENT command comes from a separate data broadcast (data broadcast 26) as opposed to the regular FM radio broadcast stream itself (voice broadcast 22). Thus, the Dimitriadis process of Figs. 6 and 7 does not involve "monitoring the received radio broadcast stream for marker data indicative of an advertising slot" and then "playing the radio advertisement in the advertising slot" of the radio broadcast stream, as recited in claim 1.

Furthermore, Dimitriadis nowhere discloses or even mentions any approach for synchronizing the advertising with the content of the voice broadcast 22. At most, Dimitriadis states that the radio broadcast system 20 transmits coordinated voice and data broadcasts 22 and 26, but the patent does not explain what is "coordinated" about these broadcasts. Certainly, it is not an enabling teaching of Applicant's claimed marker data approach. To the contrary, the process explicitly disclosed by Dimitriadis in Fig. 7 shows that when a PRESENT command from the data broadcast 26 is received, the result is to queue an advertisement for playback, and neither the PRESENT command nor any other portion of Dimitriadis' disclosed system includes any means for synchronizing or otherwise timing this queued advertisement with the content of the voice broadcast 22.

Dimitriadis Approach #2

As noted above, the second process described in Dimitriadis for presenting the vehicle occupant(s) with an advertisement is based on the use of extraneous current conditions determined at the vehicle. This second approach is shown in Fig. 8 which is a background process that continually monitors current conditions (identified in the patent as geographic location, time of day, operational status such as device power-up) and, if a current condition is detected that matches a similar criteria for a particular stored advertisement, then the advertisement is queued for presentation by delivering its index value to an advertisement presentation block 104 for use in presenting the advertisement. Again, there is nothing in this process that equates to marker data contained in the voice broadcast or to the use of an associated advertising slot in the voice broadcast. Nor is there any synchronization or other timing of the advertisement with the voice broadcast that would achieve the same result as the method of claim 1.

No Inherency

Anticipation by the disclosure of Dimitriadis under 35 U.S.C. § 102(b) requires that each and every claimed element be disclosed in the Dimitriadis patent, either expressly or inherently. As discussed above, Dimitriadis does not expressly disclose the claim 1 steps of:

> monitoring the received radio broadcast stream for marker data indicative of an advertising slot within the radio broadcast stream; and
>
> playing the radio broadcast stream using the vehicle radio and, in response to detecting the marker data, accessing the radio advertisement from memory and playing the radio advertisement in the advertising slot using the vehicle radio.

Furthermore, these steps are not inherent in the advertising system of Dimitriadis since inherency requires that the missing descriptive matter from the reference must be necessarily present in the thing described in the reference. In re Robertson, 169 F.3d 743, 49 USPQ2d 1949 (Fed. Cir. 1999). That is, anticipation under the doctrine of inherency only occurs when it can be established that the undisclosed function or property inevitably occurs as a result of practicing the teachings of the reference. In re Oelrich, 666 F.2d 578, 212 U.S.P.Q. 323 (C.C.P.A. 1981). There has been no evidence supplied by the examiner to show that the system of Dimitriadis necessarily requires the

use of marker data in the voice broadcast 22. To the contrary, the advertisements in Dimitriadis could be inserted into the voice broadcast without the use of markers; for example, by interrupting programming (asynchronously), or by analyzing programming content using conventional techniques to find breaks between pieces of content.

Accordingly, Applicant respectfully submits that the subject matter of claim 1 is not anticipated by Dimitriadis. Furthermore, neither Hite nor any of the other prior art of record make up for this deficiency of Dimitriadis. Accordingly, claim 1 and all claims dependent thereon define subject matter patentable over the prior art of record.

Regarding Claim 2, Dimitriadis Does Not Disclose Substituting an In-Line Advertisement

Claim 2 is dependent from claim 1 and should be allowed therewith. Claim 2 is also separately patentable in that it states that the radio broadcast stream includes an in-line advertisement identified by the marker data. Moreover, claim 2 also recites the step of substituting the stored advertisement for the in-line advertisement.

Dimitriadis et al. does not disclose an in-line advertisement identified by marker data. As previously stated, Dimitriadis does not disclose marker data at all. In addition, Dimitriadis nowhere discloses or suggests the claimed step of substituting a stored advertisement for an in-line advertisement in the radio broadcast stream. Accordingly, Applicant respectfully submits that claim 2 is not anticipated or rendered obvious by Dimitriadis.

Regarding Claims 4-7 and 13, Dimitriadis Does Not Disclose Storing Advertisements That Are Selected Using Advertising Data

Claims 4-7 and 13 depend from claim 1 and should be allowed therewith. Claims 4-7 and 13 are also separately patentable on the basis of claim 4 which states that each of the different radio advertisements is accompanied by advertisement data associated with the received radio advertisement, and further specifies the step of selecting for storage certain ones of the different radio advertisements using the advertisement data. Examples of advertisement data are identified as either primary or secondary selection data in Applicant's Fig. 8.

Dimitriadis nowhere discloses this claimed use of advertisement data in determining which received advertisement to store. Rather, in Dimitriadis, all advertisements addressed to a particular data radio 62 are stored without any selection being carried out on the basis of advertisement data associated with the advertisement.

Accordingly, Applicant respectfully submits that claim 4 is not anticipated or rendered obvious by Dimitriadis. Claims 5-13 each ultimately depend from claim 4 and should be allowed therewith.

Regarding Claims 8-12, Dimitriadis Does Not Disclose Selecting And Playing Advertisements Based on Primary and Secondary Selection Data

Claims 8-12 each depend from at least claims 1 and 4 and should be allowed therewith on the bases discussed above. Claims 8-12 are also separately patentable on the basis of claim 8 which, in conjunction with the claims from which it depends, recites the steps of selecting for storage certain of received advertisements using primary selection data, selecting one of the stored advertisements using secondary selection data, and then accessing and playing that (selected) stored advertisement in response to detecting the marker data. Both the primary and secondary selection data comprise advertisement data.

Dimitriadis does not teach the use of two different advertisement data (primary and secondary selection data) to both store advertisements based on primary selection data and then select stored advertisements for playback using the secondary selection data. Rather, the Dimitriadis system stores advertisements addressed to a particular vehicle receiving device based upon receipt of a STORE command from the data broadcast 26 without analysis of any advertisement data associated with the advertisement. Additionally, Dimitriadis does not disclose the combined steps of selecting stored advertisements using secondary selection data, accessing the stored advertisements in response to marker data, and then playing the accessed advertisement.

Accordingly, Applicant respectfully submits that claim 8 is not anticipated or rendered obvious by Dimitriadis. Claims 9-12 each ultimately depend from claim 8 and should be allowed therewith.

Regarding Claim 17, Dimitriadis Does Not Disclose Storing Advertisements That Are Selected Using Advertising Data

Claim 17 ultimately depends from claim 1 and should be allowed therewith. Claim 17 is also separately patentable in that it states, similar to claim 4, the step of selecting certain ones of the received radio advertisements using selection data which, in claim 17 is specified as a type of advertisement data.

As previously discussed, Dimitriadis does not disclose selecting certain advertisements for storage based on advertisement data that is supplied with the advertisement. Again, in Dimitriadis the receiving device at the vehicle stores all advertisements sent to it for storage without selecting among them using advertising data.

Accordingly, Applicant respectfully submits that claim 17 is not anticipated or rendered obvious by Dimitriadis. Claims 18 and 19 which depend from claim 17 should be allowed therewith.

Regarding Claims 18-19, Dimitriadis Does Not Disclose Selecting And Playing Advertisements Based on Primary and Secondary Selection Data

Claims 18 and 19 ultimately depend from claim 17 and should be allowed therewith. Claims 18 and 19 are also separately patentable in that they recite, similar to claim 8, the use of two different advertisement data (primary and secondary selection data) to both store advertisements based on primary selection data and then select stored advertisements for playback using the secondary selection data. Again, the Dimitriadis system stores advertisements addressed to a particular vehicle receiving device based upon receipt of a STORE command from the data broadcast 26 without analysis of any advertisement data associated with the advertisement.

Thus, Applicant respectfully submits that claims 18 and 19 are not anticipated or rendered obvious by Dimitriadis. Allowance of these claims is therefore requested.

Regarding Claims 26-31, 34-36, and 39, Dimitriadis Does Not Disclose Marker Data in Audio Content

Claim 26 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Dimitriadis. Dependent claims 27-31, 34-36, and 39 also stand rejected on this same basis and, for purposes of appeal, the patentability of these dependent claims is to be considered on the same basis as that of claim 26.

Independent claim 26 recites a radio system including a vehicle radio, a radio broadcast receiver, and an advertising control unit. The radio broadcast receiver can receive two or more radio broadcast streams, including a first radio broadcast stream that includes radio advertisements and a second radio broadcast stream that includes audio content along with intermittent advertising slots each identified by a marker contained with that broadcast stream. Upon receipt of one of the markers contained within the second broadcast stream, the advertising control unit is operable to access one of the stored radio advertisements, with the accessed radio advertisement being inserted into the advertising slot identified by the received marker.

Dimitriadis does not disclose intermittent advertising slots within a radio broadcast stream that are identified by markers contained within that broadcast stream. As discussed above in connection with claim 1, Dimitriadis does not teach or suggest the use of marker data in the voice broadcast at all, nor even the provision of advertising slots in the voice broadcast 22. Instead, advertisements are merely placed in a queue under two conditions: a PRESENT command in the data broadcast 26, or under certain specified conditions such as geographic location or time of day.

Thus, Dimitriadis does not disclose all of the limitations recited in claim 26 including, *inter alia*, the limitation of:

> wherein, upon receipt of one of the markers contained within the second broadcast stream, said advertising control unit is operable to access one of the stored radio advertisements, with the accessed radio advertisement being inserted into the advertising slot identified by the received marker so that the accessed radio advertising is included within the audio content sent to the input of the vehicle radio.

Accordingly, Applicant respectfully submits that independent claim 26 is not anticipated or rendered obvious by Dimitriadis. Claims 27-41 each ultimately depend from claim 1 and should be allowed therewith.

Regarding Claims 32 and 33, Dimitriadis Does Not Disclose Supplying Markers to an Advertising Control Unit and Accessing Advertisements in Response to the Markers

Claims 32 and 33 ultimately depend from claim 26 and should be allowed therewith. Claims 32 and 33 are also separately patentable in that they state that the radio broadcast receiver provides the markers to the advertising control unit and, further, that the advertising control unit accesses one of the radio advertisements in response to one of the markers and supplies the advertisement to the radio broadcast receiver. As further defined in claim 33, the radio broadcast receiver places the advertisement into the advertising slot.

Dimitriadis does not disclose a radio broadcast receiver that obtains markers from a radio broadcast stream and provides them to an advertising control unit. Again, no markers are disclosed in Dimitriadis.

Accordingly, Applicant respectfully submits that claims 32 and 33 are not anticipated or rendered obvious by Dimitriadis.

Regarding Claims 37 and 38, Dimitriadis Does Not Disclose Selecting And Inserting Advertisements Based on Primary and Secondary Selection Data

Claims 37 and 38 ultimately depend from claims 26 and 32 and should be allowed therewith on the bases discussed above. Claims 37 and 38 are also separately patentable in that they state, similarly to claim 8, that the selection data includes primary selection data and secondary selection data. The advertising control unit selects certain ones of the different radio advertisements for storage using advertisement data in the form of primary selection data, and then selects for playback one of the stored radio advertisements using advertisement data in the form of secondary selection data.

As explained for claim 8, Dimitriadis does not store advertisements based on advertisement data, but rather stores records based upon a receipt of the STORE command from the data broadcast 26.

Accordingly, Applicant respectfully submits that claims 37 and 38 are not anticipated or rendered obvious by Dimitriadis.

Regarding Claims 40 and 41, Dimitriadis Does Not Disclose Selecting Advertisements Based on Stored User Data

Claims 40 and 41 ultimately depend from claims 26 and 34 and should be allowed therewith on the bases discussed above. Claims 40 and 41 are also separately patentable in that they state that the advertising control unit stores user data and selects one or more radio advertisements using both advertisement data and the stored user data.

Dimitriadis does not disclose an advertising control unit storing user data or selecting radio advertisements based on stored user data. Dimitriadis does disclose loading into receiving devices advertisements tailored to group needs; however, the system does not include storing user data on the unit itself. Instead, particular advertisements are pre-selected by the broadcaster for storage on a particular unit. Moreover, the receiving device does not select stored advertisements based on stored user data. Instead, the stored advertisements are played when commanded by the PRESENT command from the broadcaster.

Accordingly, Applicant respectfully submits that claims 40 and 41 are not anticipated or rendered obvious by Dimitriadis.

Rejection Under 35 U. S. C. § 103(a)

Claims 14, 15, 20, and 42-45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dimitriadis in view of Hite. The rejection is traversed for the reasons discussed below.

Regarding Claims 14, 15, 20, and 42

As to claims 14, 15, 20 and 42, although Hite discloses an approach for counting the number of times an advertisement is presented, as well as providing an upstream confirmation that an advertisement was played, it does not make up for the above-noted deficiencies of the Dimitriadis patent. Given that Dimitriadis does not teach or suggest the use of markers or marker data to identify advertising slots in a radio broadcast stream, along with the insertion of stored advertisements into those slots using the markers, no prima facie case of unpatentability has been made out and, thus, the rejection under 35 U.S.C. § 103(a) is improper. Furthermore, the examiner has not pointed to anything in Hite or the other prior art of record by which it would have been obvious to modify the Dimitriadis system from its approach of sending separate PRESENT commands and queuing up advertisements, so that it would instead use markers in the radio broadcast stream.

In addition, claims 14 and 15 also depend from claim 4, and as previously discussed, Dimitriadis does not in fact teach or suggest the features of claim 4. Nor has the examiner pointed to anything from Hite by which the features of claim 4 would have been obvious. Accordingly, these claims 14, 15, 20, and 42 are allowable over the combination of Dimitriadis and Hite.

Regarding Claims 43-45, Dimitriadis and Hite Do Not Disclose Marker Data, or Primary and Secondary Data Selection, etc.

With respect to claims 43-45, independent claim 43 also specifies the use of intermittent advertising slots in the radio broadcast stream that are identified by markers. Furthermore, claim 43 recites the use of primary selection data for determining which received advertising should be stored at the vehicle and the use of secondary selection data for determining which stored advertising should be inserted into the radio broadcast stream. It further specifies that the primary selection data used to determine which advertisements should be stored includes data concerning either the vehicle or a user of the vehicle, or both. These features are nowhere taught or suggested by either Dimitriadis or Hite. Rather, in those prior art systems, the received

advertisements are stored either based on being addressed specifically to the particular end user device or based on a matching code (CID).

Accordingly, these claims 43-45 are neither anticipated nor rendered obvious by the combination of Dimitriadis and Hite.

Conclusion

In view of the foregoing, Appellant respectfully submits that the rejections of claims 1-13, 16-19, and 21-41 as being anticipated by Dimitriadis, and claims 14, 15, 20, and 42-45 over the combination of Dimitriadis and Hite are improper and should be overturned.

The Commissioner is hereby authorized to charge any deficiencies, or credit any overpayment associated with this appeal brief to Deposit Account No. 07-0960.

Respectfully submitted,

REISING, ETHINGTON, BARNES, KISSELLE, P.C.

/James D. Stevens/

James D. Stevens
Registration No. 35,691
P.O. Box 4390
Troy, Michigan 48099
(248) 689-3500

Date: December 18, 2006
JDS/dim

(viii) Claims Appendix

1. A method of delivering advertising content to a vehicle occupant using a vehicle radio, comprising the steps of:

receiving a radio advertisement;

storing the radio advertisement in memory;

receiving a radio broadcast stream;

monitoring the received radio broadcast stream for marker data indicative of an advertising slot within the radio broadcast stream; and

playing the radio broadcast stream using the vehicle radio and, in response to detecting the marker data, accessing the radio advertisement from memory and playing the radio advertisement in the advertising slot using the vehicle radio.

2. The method of claim 1, wherein said radio broadcast stream includes an in-line advertisement identified by the marker data and wherein the method further comprises the step of substituting the stored radio advertisement for the in-line advertisement.

3. The method of claim 1, further comprising the steps of:

receiving a plurality of different radio advertisements;

selecting certain ones of the received radio advertisements; and

storing the selected radio advertisements in the memory;

wherein said playing step further comprises accessing one of the stored radio advertisements in response to detecting the marker data and playing the accessed radio advertisement in the advertising slot using the vehicle radio.

4. The method of claim 3, wherein each of the different radio advertisements is accompanied by advertisement data associated with the received radio advertisement, and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the advertisement data associated with the different radio advertisements.

5. The method of claim 4, wherein the advertisement data includes selection data and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the selection data.

6. The method of claim 5, wherein said selecting step further comprises selecting certain ones of the different radio advertisements based on a comparison of the selection data with stored vehicle data.

7. The method of claim 5, wherein said selecting step further comprises selecting certain ones of the different radio advertisements based on a comparison of the selection data with stored user data.

8. The method of claim 5, wherein the selection data includes primary selection data and secondary selection data and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the primary selection data, and wherein said playing step further comprises selecting one of the stored radio advertisements using the secondary

selection data, accessing that stored radio advertisement in response to detecting the marker data, and then playing the accessed radio advertisement using the vehicle radio.

9. The method of claim 8, further comprising the step of storing each of the secondary selection data with its associated radio advertisement in the memory.

10. The method of claim 8, wherein the primary selection data includes at least one of advertisement type data, listener demographic data, vehicle type data, and geographical region data.

11. The method of claim 8, wherein the secondary selection data includes at least one of timing data and advertisement length data.

12. The method of claim 11, wherein the timing data includes at least one of priority data, time of day data, frequency data, urgency data, and expiration data.

13. The method of claim 4, wherein the advertisement data for each radio advertisement includes identification data that uniquely identifies that radio advertisement from among the other radio advertisements, and wherein said storing step further comprises storing the identification data with its associated radio advertisement in the memory.

14. The method of claim 13, further comprising the step of transmitting the stored identification data from the vehicle following playing of its associated radio advertisement.

15. The method of claim 3, wherein the advertisement data for one or more of the stored radio advertisements includes a play count stored in memory and wherein the method further comprises the step of periodically replaying one of the stored radio advertisements until that radio advertisement has been played a number of times that is equal to its associated play count.

16. The method of claim 1, further comprising the step of receiving a plurality of different radio advertisements, each of which is accompanied by advertisement data associated with the received radio advertisement, and storing at least some of the received radio advertisements along with at least a portion of their associated advertisement data.

17. The method of claim 16, wherein the advertisement data includes selection data and wherein said step of storing received radio advertisements further comprises selecting certain ones of the different radio advertisements using the selection data and then storing the selected radio advertisements in the memory.

18. The method of claim 17, wherein the selection data includes primary selection data and secondary selection data and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the primary selection data, and wherein said playing step further comprises selecting one of the stored radio advertisements using the secondary selection data, accessing that stored radio advertisement in response to detecting the marker data, and then playing the accessed radio advertisement using the vehicle radio.

19. The method of claim 18, further comprising the step of storing each of the secondary selection data with its associated radio advertisement in the memory.

20. The method of claim 16, wherein the advertisement data for each radio advertisement includes identification data uniquely identifying that radio advertisement from among the other radio advertisements, and wherein, following playing of a selected radio advertisement, said method further comprises the step of transmitting the identification data from the vehicle.

21. The method of claim 16, wherein the associated advertisement data includes metadata indicative of the content of the radio advertisement.

22. The method of claim 16, wherein the associated advertisement data includes metadata indicative of a demographic group.

23. The method of claim 16, wherein the associated advertisement data includes data indicative of the length of the radio advertisement.

24. The method of claim 1, further comprising the step of accessing the radio advertisement from memory based on user **data.** ~~**data;**~~

25. The method of claim 24, further comprising the step of obtaining the user data from a remotely located computer.

26. A radio system for a vehicle to provide broadcasted radio programming and advertising content to an occupant of a vehicle, comprising:

a vehicle radio having an input for receiving audio data and at least one output for providing audio signals representative of the received audio data;

a radio broadcast receiver having an antenna for receiving two or more radio broadcast streams, with a first one of the radio broadcast streams including radio advertisements and a second one of the radio broadcast streams including audio content that contains intermittent advertising slots each identified by a marker contained with that broadcast stream, the radio broadcast receiver being coupled to the input of the vehicle radio to provide the vehicle radio with the received audio content; and

an advertising control unit connected to said radio broadcast receiver to receive at least some of the radio advertisements contained in the first radio broadcast stream, said advertising control unit including a recording device which stores radio advertisements received from said radio broadcast receiver;

wherein, upon receipt of one of the markers contained within the second broadcast stream, said advertising control unit is operable to access one of the stored radio advertisements, with the accessed radio advertisement being inserted into the advertising slot identified by the received marker so that the accessed radio advertising is included within the audio content sent to the input of the vehicle radio.

27. The radio system as defined in claim 26, wherein the vehicle radio and radio broadcast receiver are integrated together as a single unit.

28. The radio system as defined in claim 26, wherein the vehicle radio, radio broadcast receiver, and advertising control unit are integrated together as a single unit.

29. The radio system as defined in claim 26, wherein said recording device comprises a digital storage device.

30. The radio system as defined in claim 26, wherein said digital storage device comprises random access memory.

31. The radio system as defined in claim 26, wherein the radio broadcast receiver is connected to the input of the vehicle radio and wherein the advertising control unit is operable to supply the accessed radio advertisement to the radio broadcast receiver for insertion into the audio content by the radio broadcast receiver.

32. The radio system as defined in claim 31, wherein said radio broadcast receiver is operable to provide the markers to said advertising control unit, and said advertising control unit is operable in response to receiving one of the markers to access one of the radio advertisements and supply the accessed radio advertisement to the radio broadcast receiver.

33. The radio system as defined in claim 26, wherein the radio broadcast receiver is coupled to the input of the vehicle radio by the advertising control unit such that the first and second radio broadcast streams are sent by the radio broadcast receiver to the advertising control unit, and wherein the advertising control unit is operable to store on the recording device at least

some of the radio advertisements contained in the first radio broadcast stream, and is further operable to monitor the second radio broadcast stream for the markers and to insert the accessed radio advertisement into one of the advertising slots following receipt of the marker that identifies that advertising slot.

34. The radio system as defined in claim 26, wherein said advertising control unit is operable to select one or more of the received radio advertisements using advertisement data that accompanies each of the radio advertisements received by the radio broadcast receiver.

35. The radio system as defined in claim 34, wherein said advertising control unit is operable to store the selected radio advertisements on said recording device.

36. The radio system as defined in claim 34, wherein the advertisement data contains selection data used by the advertising control unit to select among the received radio advertisements.

37. The radio system as defined in claim 36, wherein the selection data includes primary selection data and secondary selection data and wherein said advertising control unit is operable to select and store certain ones of the different radio advertisements using the primary selection data, and is further operable to select one of the stored radio advertisements using the secondary selection data and to then access that stored radio advertisement for insertion into the audio content sent to the input of the vehicle radio.

38. The radio system as defined in claim 37, wherein the advertising control unit is operable to store each of the secondary selection data with its associated radio advertisement in the recording device.

39. The radio system as defined in claim 34, wherein said advertising control unit contains stored vehicle data and is operable to select one or more of the received radio advertisements using the advertisement data and the stored vehicle data.

40. The radio system as defined in claim 34, wherein said advertising control unit contains stored user data and is operable to select one or more of the received radio advertisements using the advertisement data and the stored user data.

41. The radio system as defined in **claim 40,** ~~**claim 34,**~~ further comprising a vehicle communications device connected to said advertising control unit to provide said advertising control unit with the user data.

42. The radio system as defined in claim 34, further comprising a vehicle communications device operable to transmit identification data received from the first radio broadcast stream that uniquely identifies the accessed radio advertisement from among the other radio advertisements.

43. A radio broadcast system for providing broadcasted radio programming and advertising content to an occupant of a vehicle, comprising:

one or more radio broadcast transmitting facilities that provide a first radio broadcast stream which includes radio advertisements and a second radio broadcast stream which includes audio content that contains intermittent advertising slots each identified by a marker contained with that broadcast stream;

a vehicle radio system that includes:

(a) a radio broadcast receiver located on a vehicle and being operable to receive the first and second radio broadcast streams;

(b) a recording device located on the vehicle and being operable to store at least some of the radio advertisements received by the radio broadcast receiver, said recording device further being operable to supply one or more of the stored radio advertisements for insertion into the second radio broadcast stream; and

(c) a vehicle radio coupled to the radio broadcast receiver to receive the second radio broadcast;

a vehicle communications device that transmits data confirming playback of the radio advertisement inserted into the second radio broadcast; and

a vehicle communications central facility that receives the data transmitted from the vehicle communications device;

wherein each of at least some of said advertisements are transmitted to said vehicle radio system along with primary and secondary selection data that is associated with each said advertisement, said vehicle radio system monitoring the first broadcast stream and storing selected ones of said advertisements on said recording device based on a comparison of primary selection data stored in said vehicle radio system with the primary selection data that is included with said advertisements, said vehicle radio system also monitoring the second broadcast stream

for said markers and selecting one of said stored advertisements based on said secondary selection data for playback via the vehicle radio during the advertising slot associated with said marker;

wherein said primary selection data includes one or more data items associated with either the vehicle or a user of the vehicle, or both.

44. The radio broadcast system as defined in claim 43, further comprising a network-accessible server for receipt of the radio advertisements, said server being operable to supply received radio advertisements to the one or more radio broadcast transmitting facilities.

45. The radio broadcast system as defined in claim 43, further comprising an advertising control unit located on the vehicle, said advertising control unit being connected to said radio broadcast receiver to receive at least some of the radio advertisements contained in the first radio broadcast stream, and to store at least selected ones of the radio advertisements on said recording device.

(ix) Evidence Appendix

None.

(x) Related Proceedings Appendix

None.